



Attorney Docket No. 60,130-569

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant: Kramer
Serial No.: 09/411,730 ✓
Filed: 10/1/99 ✓
Group Art Unit: 2858 ✓
Examiner: Hamdan, W. ✓
Title: DIAGNOSTIC REMOTE CONTROL ✓
Docket No.: 60,130-569

APPEAL BRIEF

Assistant Commissioner of Patents
Washington, D.C. 20231

Dear Sir:

Appellant resubmitted a Notice of Appeal on November 12, 2000 along with a Request for Reconsideration. Thus, the submission of this Brief is within three months of the Notice of Appeal. The delay in filing this brief was in part due to Appellant only recently receiving the Examiner's Advisory Action. The delay was apparently due to the mail delay suffered by the United States Patent and Trademark Office in the fall. Appellant is unsure of the Office's treatment of such delays. If an extension of time is necessary for filing this brief at this time, Appellant hereby conditionally petitions for such an extension. Fees in the amount of \$110.00, or any additional fee due, may be charged to Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds. The fees in connection with the submission of this brief were previously paid with

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submitted Appeal Brief. Thus, no fees are believed due for the submission of this brief at this time. However, to the extent fees are due, you are also authorized to charge the above-referenced deposit account.

Real Party in Interest

The real party in interest in this application is the assignee of the entire right, Meritor Heavy Vehicle Systems, LLC.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

Claims 1-18 stand finally rejected under 35 USC §103.

Status of Amendments

An amendment to Claim 19 after final rejection was filed 12 November 2001 in this case. By advisory action mailed 29 January 2002, the Examiner indicated the amendment would be entered. Thus, the Claim 19 in the Claim Appendix includes the amendment.

Summary of the Invention

This application discloses and claims an improved method and control for facilitating the diagnostic checking of systems on a vehicle. In particular, heavy duty vehicles, such as trucks, require frequent maintenance checks and electrical components such as brakes, differentials, ABS valves, turn signal lamps, brake lamps, and any component having an electrically actuated input. Occasionally, these checks need to be performed by the vehicle operator while the vehicle is in the

field. The maintenance check requires that the electrical components be actuated while performing diagnostic analysis on the components. As an example, to test the brake lights, typically the brake pedal must be depressed. The diagnostic analysis of these components will require things such as visually inspecting the components while the component is actuated. Prior to this invention, the method for testing these components required two technicians. A first technician sat in the cab and actuated the component upon the verbal command of the second technician. The second technician then visually inspected the components.

The present invention discloses a method and control for communicating with a control on the vehicle for actuating each of the components. Thus, a single operator outside of the vehicle is now able to actuate the control to in turn actuate the electrical components. This operator outside of the vehicle can then visually inspect the operation of the components. A remote transmitter is disclosed for use in communicating with the receiver on the vehicle. The independent claims include method claim 1 and 10. Method claim 1 requires the method steps of relaying a signal from a remote transmitter to a receiver aboard a vehicle, and actuating a plurality of electrical components on the vehicle in response to the signal from the transmitter. The preamble of this claim recites that the method is for performing diagnostic analysis on the electrical components and the claim requires the step of visually inspecting the actuation. Independent method claim 10 does not require the visual inspection, but does recite the steps of programming an electronic control device on a vehicle with an actuation sequence for a plurality of vehicle electrical components. The signal is transmitted from a remote transmitter to a receiver on the vehicle. The signal is relayed to

the electronic control device for beginning the actuation sequence of the electrical components in response to the signal. Diagnostic analysis is performed upon the electrical components while actuating the electrical components with the remote transmitter.

Independent claim 15 is an apparatus claim including a remote transmitter for transmitting an actuation signal and a receiver located aboard a vehicle for receiving the actuation signal from the remote transmitter and relaying an actuation signal to the electrical components to be actuated for diagnostic purposes, and for allowing visual inspection.

The dependent claim 5 (dependent to claim 1) and dependent claims 17 and 18 (dependent to claim 15) add the feature that there is a cycle of actuation (as found in Claim 10) for the electrical components which is performed. Claim 17 recites that there are selected ones of the electrical components which are actuated. Claim 18 adds in the limitations to claim 17, such as found in claim 5 about the actuation cycle.

Dependent claim 11 (dependent to claim 10) claims the step of entering a temporary program into the electronic control device for actuating the components. Thus, no permanent memory of the control program need be stored.

Claims 19, 20 and 21 are dependent to Claims 1, 10 and 15, respectively. These claims recite the feature that among the plurality of electrical components are at least a brake and at least some of the vehicle lights. It is this type of electrical component which will benefit most from the inventive method.

In sum, the present invention discloses a control which allows actuation of several electrical components on a vehicle through the actuation of the remote transmitter. Thus, a single diagnostic operator can both actuate the components and then visually inspect their operation.

Issues

Is the rejection of Claims 1-5, 7, 8, 10-15, 17 and 18 over the Doyle, et al. patent proper?

Is the rejection of Claims 6, 9 and 16 over the Doyle, et al. patent taken with either the Ostermann, et al. or Wallace patents proper?

Is the rejection of Claims 19-21 over Doyle, et al. taken with the Traub patent proper?

Grouping of Claims

The rejection of Claim 15 is contested.

The rejection of Claim 16 is contested separately relative to the rejection of Claim 15.

The rejection of Claim 17 is contested separately relative to the rejection of Claim 15.

The rejection of Claim 18 is contested separately relative to the rejection of Claim 15.

The rejection of Claim 21 is contested separately relative to the rejection of Claim 15.

The rejection of Claims 1-4, 7 and 8 are separately contested relative to the rejection of Claim 15.

The rejection of Claims 10 and 12-14 are separately contested relative to the rejection of Claim 1.

The rejection of Claim 11 is separately contested relative to the rejection of Claim 1

The rejection of Claim 20 is separately contested relative to the rejection of Claim 1

That is, the above groups do not stand or fall together.

Arguments

The rejection of Claim 15 over the Doyle, et al. patent is contested.

Claim 15 requires a receiver on a vehicle which receives an actuation signal from a remote transmitter and relays an actuation signal to a plurality of electrical components to be actuated for diagnostic purposes to allow visual inspection of the actuation of the plurality of electrical components from the location of the remote transmitter. In pertinent part, the claim requires that there be a plurality of electrical components which are actuated for diagnostic purposes by a signal from the receiver.

The examiner rejects this claim over the Doyle, et al. patent. Doyle, et al. discloses no diagnostic information with regard to a component which is actuated by a receiver. Instead, Doyle, et al. transmits diagnostic information about the transmitter (a key fob or remote keyless entry device). Doyle as such does not meet the Claim 15 in that it does not send any signal to actuate a plurality of vehicle¹⁰ components for diagnostic purposes. } 1st argument

The examiner seems to take the position that appellant's argument is solely that Doyle does not disclose visual inspection. Doyle does disclose the visual display of the status of the key fob, and thus the examiner seems to take the position that visual inspection is provided. However, this misses the limitations set forth above which Doyle, et al. fail to meet in the specifically claimed structure. Doyle discloses diagnostic information with regard to the transmitter, not components on the vehicle and actuates nothing for diagnostic purposes. } 2nd argument

The examiner also makes reference to two cases to support an argument that an apparatus claim must be “structurally distinguishable” from the prior art. Although this argument is not tied to any claim, appellant would assume that the argument applies to the apparatus Claims 15, 17, 18 and 21, and not to the method claims.

The examiner argues that *Hewlett, Packard Co. v. Bausch & Lomb, Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) supports his position. However, *Hewlett, Packard Co.* does not support the argument at all. In *Hewlett, Packard Co.*, an accused infringer was arguing that a claim was not patentable since there was no functional difference between the claimed structure and the prior art structure. There were structural differences, merely the accused infringer was arguing there were no functional differences. The Federal Circuit in *Hewlett, Packard Co.* made the unremarkable observation that structural differences without functional differences, could be patentable. The case does not hold that an apparatus claim must be structurally distinguishable from the prior art. There is no support in this case for the position the examiner tries to take here, that functional statements can be ignored in the apparatus claim. Instead, the holding was the opposite. As mentioned below, even if this were the holding, the present claims do recite “structure”.

The examiner argues that *In Re Danley*, 102 USPQ 528, 531 (CCPA 1959) also supports his position. Of course, *In Re Danley* was prior to *Graham v. John Deere*, and has little relevance to a modern obviousness determination. The claims do specifically require a control which is structured and designed to provide certain functional benefits. A computer control such as claimed is an item which was not in existence in 1959. A computer control is “structured” to include

software, circuitry, etc. to achieve certain functions. That is, "structure" is claimed within the modern sense. *In Re Danley* does not support the examiner's position for this reason.

For the foregoing reasons, the rejection of Claim 15 is improper. In fact, if the Board agrees that the rejection of Claim 15 is not supported by the Doyle, et al. patent, generally all of the other rejections must also fail.

The Rejection of Claim 16 is Improper

Claim 16 adds to Claim 15 the step of bypassing an electronic control device between receiver and the electrical components and directly signaling the electrical components. Again, Doyle, et al. does not actuate any components, and thus there would be no reason for bypassing the electronic control device and directly signaling any "electrical components".

2, 1d
argued

There is nothing in Ostermann, et al. or Wallace which would overcome this deficiency. While devices are certainly known which have bypassed various controls for various reasons, this does not eliminate the basic failing in the Doyle, et al. patent. There is nothing that would suggest any modification of the Doyle, et al. device by Ostermann, et al. or Wallace. Simply, Doyle, et al. provides diagnostic information to a vehicle control about the key fob. Nothing would be gained by any modification of Doyle which could arguably be suggested by Ostermann, et al. or Wallace that would relate at all to this function. No "bypass" would benefit Doyle, et al.'s diagnostic report. As such, the rejection is improper and should be reversed.

4th
arg.

The rejection of claim 17 is improper.

Claim 17 is dependent to Claim 15 and recites that the actuation signal actuates selected ones of the electrical components such that the signal requests particular ones of the components to be actuated.

Again, Doyle, et al. does not actuate any component, but rather reports on the status of the key fob. Certainly, nothing could be done that allows "selected ones" or "requests particular ones" of the electrical components to be actuated. Simply, Doyle, et al. cannot meet this claim. } th arg.

The rejection of claim 18 is improper.

Claim 18 is dependent to Claim 15, and requires that the components are actuated through a cycle. Again, Doyle, et al. does not actuate any components, and certainly does not actuate components through a cycle. Appellant's claimed invention actuates through a cycle such that an operator knows which component to next visually observe. Doyle, et al. cannot fairly be said to meet this claim. } th arg.

The rejection of Claim 21 is improper.

21/ Claim 19 is dependent to Claim 15, and is rejected by adding the Traub reference to Doyle, et al. Traub relates to testing brakes or lights. It is not Appellant's contention that brakes or lights have never been tested, but rather that the specific method set forth would be patentable. Doyle, et al. provides diagnostic information with regard to a key fob. There is nothing in Doyle, et al. that would teach one how to test a brake or light remotely, nor would any proper combination of Traub, et al. with Doyle, et al. overcome this failing. Simply, this rejection is based only on a reading of } th arg.

appellant's disclosure. Again, appellant does not claim to have invented the concept of testing lights or brakes, but rather is utilizing an inventive method to do so. Doyle, et al. cannot be fairly combined with Traub to meet this claim. Thus, Claim 21 is allowable for this additional reason, and for the reasons set forth with regard to Claim 15. } 7th

The rejection of Claims 1-4, 7 and 8 is improper.

The rejection of Claims 1-4, 7 and 8 is improper for the same reasons as the rejection of Claim 15, and with the additional reason that these are method claims and the cases cited by the examiner would be even less applicable. Further, these method claims specifically require the step of actuating and visually inspecting the actuation of the plurality of electrical components. } 8th

The rejection of Claims 6 and 9 is improper.

Claims 6 and 9 require a bypass step similar to that set forth in Claim 16. These claims are, however, ultimately dependent to Claim 1. These claims are allowable for the reasons set forth above with regard to both Claims 1 and 16. } 9th

The rejection of Claim 19 is improper.

Claim 19 is rejected over the combination of Doyle, et al. and Traub, similar to Claim 21. Claim 19 is dependent to Claim 1, and is allowable for the reasons set forth with regard to both Claim 1 and Claim 21 above. } 10th

The rejection of Claims 10 and 12-14 is improper.

Claim 10 requires the actuation cycle as a method. Thus, Claim 10 is allowable for the reasons set forth above with regard, for example, to Claim 18. Further, the claim is allowable for } 11th

the reasons set forth above with regard to Claim 1. However, Claim 10 does not require the specific visual inspection step.)

The Rejection of Claim 11 is Improper.

Claim 11 is drawn to Claim 10 and requires the step of entering a temporary program into an electronic control device for a vehicle for actuating the electrical components. Doyle, et al. discloses no such temporary program being supplied to a control device. In fact, Doyle does not take the steps required by the temporary program, let alone providing any temporary program. 12

The Rejection of Claim 20 is Improper.

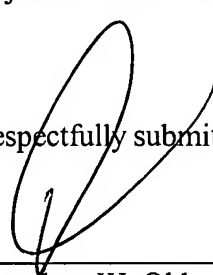
Claim 20 adds in the method steps of testing the brakes and lights. This claim is dependent to Claim 10 and is allowable for the reasons set forth with regard to Claim 10 above, and further for the reasons set forth above with regard to Claim 21. 13

CLOSING

For the reasons set forth above, the rejection of all claims is improper and should be reversed. Such action is earnestly solicited.

Respectfully submitted,

Date: February 12, 2002



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CERTIFICATE OF MAILING

I hereby certify that the enclosed Appeal Brief is being deposited (in triplicate) with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Assistant Commissioner of Patents, Washington D.C. 20231 on this 12 day of February, 2002.



Laura Combs

CLAIMS APPENDIX

1. A method of actuating electrical components of a vehicle for performing diagnostic analysis on the electrical components, said method comprising:
 - relaying a signal from a remote transmitter to a receiver aboard a vehicle;
 - actuating a plurality of electrical components on the vehicle in response to the signal from the transmitter; and
 - visually inspecting the actuation of said plurality of electrical components from the location of said remote transmitter.
2. A method as set forth in claim 1 including the step of performing diagnostic analysis upon the plurality of electrical components on the vehicle while actuating the electrical components with the remote transmitter.
3. A method as set forth in claim 2 wherein said step of relaying a signal from the remote transmitter is further defined by transmitting a radio frequency signal from a remote transmitter to a vehicle receiver.
4. A method as set forth in claim 3 including the step of relaying the signal received by the receiver to an electronic control device located aboard the vehicle.

5. A method as set forth in claim 4 wherein said step of actuating the electrical components is further defined by directing the electronic components through an actuation cycle programmed into the electronic control device.

6. A method as set forth in claim 3 further including the step of wiring the receiver to the electrical components for by-passing the electronic control device for directly signaling the electrical components.

7. A method as set forth in claim 2 wherein said step of relaying the signal received by the keyless entry receiver to the electronic control device located aboard the vehicle.

8. A method as set forth in claim 7 including said step relaying the signal received by the keyless entry receiver to the electronic control device located aboard the vehicle.

9. A method as set forth in claim 8 further including the step of wiring the keyless entry receiver to the electrical components for by-passing the electronic control device for directly signaling the electrical components.

10. A method of actuating electrical components of a vehicle for performing diagnostic analysis on the electrical components, said method comprising:

programming an electronic control device on a vehicle with an actuation sequence for a plurality of vehicle electrical components;

transmitting a signal from a remote transmitter to a receiver aboard the vehicle;

relaying the signal to the plurality of electronic control device for beginning the actuation sequence of the electrical components in response to the signal from the transmitter; and

performing diagnostic analysis upon the electrical components while actuating the electrical components with the remote transmitter.

11. A method as set forth in claim 10, said step of programming the electronic control device is further defined by entering a temporary program into the electronic control device for

15. An apparatus for performing diagnostic analysis upon electronic components of a vehicle, wherein said apparatus comprises:

a remote transmitter for transmitting an actuation signal;

a receiver located aboard a vehicle for receiving the actuation signal from said remote transmitter and relaying an actuation signal to a plurality of electrical components to

be actuated for diagnostic purposes, to allow visual inspection of the actuation of said plurality of electrical components from the location of said remote transmitter.

16. A method as set forth in claim 6 wherein said step of wiring the receiver to the electrical components is further defined by wiring the receiver to a standard electronic data bus for by-passing the electronic control device for directly signaling the electrical components.

17. An apparatus as set forth in Claim 15, wherein said actuation signal actuates selected ones of said electrical components, such that said signal requests particular ones of said electrical components to be actuated.

18. An apparatus as set forth in Claim 17, wherein said electrical components are actuated through an actuation cycle.

19. A method as set forth in Claim 1, wherein said plurality of electrical components includes at least the brakes and at least some lights.

20. A method as set forth in Claim 10, wherein said plurality of electrical components includes at least the brakes and at least some lights.

21. An apparatus as set forth in Claim 15, wherein said plurality of electrical components include at least a brake and at least some of the vehicle lights.

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